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EXAMINER

SASTRI, SATYA B

ART UNIT

PAPER NUMBER

1713

DATE MAILED: 12/24/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,198

Applicant(s)

CHEN ET AL.

Examiner

Satya B Sastri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-10, 12-14 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 5, 11, 15 and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This Office action is in response to application filed on June 20, 2001. Claims 1-21 are now pending.

Specification

2. The disclosure is objected to because of the following informalities:

The disclosure refers to non-free radically polymerizable acids that can be employed in the polymerization reaction mixture in the detailed description of the invention and in claim 5. Examples listed include acetic acid, hexanoic acid, hydrochloric acid, sulfuric acid, etc. (page 8, lines 17-29). The phrase "non-free radically polymerizable acids" is misleading because it implies that the acids are not polymerizable by free radicals but are polymerizable by other means. However, the examples include monofunctional organic acids that can only serve as end caps and inorganic acids to control the pH of the polymerization medium.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-4, 6-10, 12-14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Morris et al. (US 5,514,122).

Morris et al. disclose pressure-sensitive adhesive compositions comprising matrix or binder and polymeric microspheres. The polymeric microspheres are based on polymerizable monomers selected from the group of alkyl acrylate esters, alkyl methacrylate esters etc. (column 4, lines 10-11). The matrix or binder is based on free radically polymerizable acrylate such as isooctyl acrylate, isononyl acrylate, n-butyl acrylate, hexyl acrylate etc. (column 6, lines 42-53). The disclosure further includes that for obtaining superior cohesive strengths, the adhesive matrix may be crosslinked with multiacrylates (column 7, lines 46-51). The adhesive may comprise 1 to 60 parts of a water dispersible acrylate microsphere and 99 to 40 parts of aqueous latex as adhesive matrix (column 15, lines 39-58, claim 1). Additionally, in working examples 1-7 in column 10 for adhesive preparation, an aqueous microsphere suspension of 25% solids by weight or 49% solids by weight is blended with latex adhesive in amounts appropriate to provide the desired weight % of microspheres on a dry basis. In this prior art, the weight ratio, on a solids basis, of microspheres to crosslinked acrylate polymer ranges from about 0.04:1 to about 2:1 (column 11, Table I).

In regard to claim 12, Morris et al. disclose a disposable absorbent article which comprises a liquid permeable cover layer, an absorbent layer and a liquid impermeable backing layer and a linerless adhesive fastening region on at least one face of said backing layer comprising the adhesive composition (column 15, lines 40-59, claim 1).

In regard to claim 2, Morris et al. disclose that the adhesive may comprise 1 to 60 parts of a water dispersible acrylate microsphere and 99 to 40 parts of aqueous latex as adhesive matrix

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(column 15, lines 39-58, claim 1). Additionally, in working examples 1-7 in column 10 for adhesive preparation, an aqueous microsphere suspension of 25% solids by weight or 49% solids by weight are blended with latex adhesive in amounts appropriate to provide the desired weight % of microspheres on a dry basis.

In regard to claims 3 and 13, Morris et al. disclose that the weight ratio, on a solids basis, of microspheres to crosslinked acrylate polymer ranges from about 0.04:1 to about 2:1 (column 11, Table I).

In regard to claims 4 and 14, Morris et al. also include the microsphere composition for the preparation of solid microspheres by a one-step emulsification (column 4, lines 58-65).

In regard to claims 6 and 16, Morris et al. further disclose the microsphere composition for the preparation of hollow microspheres (column 4, line 47-55).

In regard to claims 7 and 17, Morris et al. further include that the T_g of the acrylate adhesive matrix is less than 0°C and preferably, less than -10°C (column 6, lines 49-50).

In regard to claims 8 and 18, Morris et al. further disclose other useful materials that can be blended into adhesive matrix binders that include tackifiers, stabilizers and rheological modifiers (column 7, lines 64-67 and column 8, line 1).

In regard to claims 9 and 19, Morris et al. further disclose that the pressure-sensitive adhesive properties of the microspheres may be altered by the addition of neutralizing agent (column 6, lines 37-38). The disclosure also includes other useful materials, which may be blended into the adhesive matrix such as foaming agents and rheological modifiers (column 7, line 68 and column 8, line 1). In addition, the latex pressure-sensitive adhesive composition was prepared using a copolymerizable surfactant (column 10, line 47-48).

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In regard to claims 10 and 20, Morris et al. further disclose that the microspheres comprise at least 70 parts of at least one free radically polymerizable monomer of any acrylate or methacrylate and 0 to 30 parts of at least one polar monomer (column 15, lines 48-53). Furthermore, preferred polar monomers listed include mono-olefinic monocarboxylic acids, mono-olefinic dicarboxylic acids and salts thereof (column 3, lines 18-25).

Allowable Subject Matter

5. Claims 5, 11, 15, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is an examiner's statement of reasons for allowance:

Claims 5 and 15 are in regard to solid microspheres that are based on polymerization of an alkyl acrylate monomer and a polar free radically polymerizable monomer in the presence of an organic or inorganic acid component. Claims 11 and 21 pertain to the dry peel film values for the adhesive compositions on stainless steel surface.

The present claims are allowable over the closest prior art reference: Morris et al. (US 5,514,122) and Delgado et al. (US 5,578,650).

Morris et al. disclose the composition of hollow and solid microspheres based on an alkyl acrylate monomer, a polar monomer and an optional crosslinking agent. Delgado et al. disclose the composition of hollow and solid microspheres based on an alkyl acrylate monomer and a

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non-free radically polymerizable without the requirement of a polar comonomer. Neither art teaches solid microspheres based on all three components as disclosed in claims 5 and 15 of the present invention. The prior art also does not include data on peel film values on stainless steel surfaces.

In light of above discussions, it is evident as to why the present claims are patentable over the closest prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri whose telephone number is (703) 305-8490.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached at (703) 308-2450.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist at (703) 308-2351.

SATYA SASTRI

December 23, 2002


DAVID W. WU
SUPERVISORY PATENT EXAMINER
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